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## **RECEIVED**

NOV 0 5 2002

TECH CENTER 1600 2900

## SEQUENCE LISTING

<110>	Tanzi, Rudolph Wasco, Wilma	
<120>	Genetic Alterations Related To Familial Alzheimer's Disease	
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	US 09/785,474 2001-02-20	
	US 08/706,344 1996-08-30	
	US 60/003,054 1995-08-31	
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Pro Leu Ser Asn Gly Arg Pro Gln Gly Asn Ser Arg Gln Val Val Glu 50 55 60

Gln Asp Glu Glu Glu Asp Glu Glu Leu Thr Leu Lys Tyr Gly Ala Lys 65 70 75 80

His Val Ile Met Leu Phe Val Pro Val Thr Leu Cys Met Val Val Val 85 90 95

Val Ala Thr Ile Lys Ser Val Ser Phe Tyr Thr Arg Lys Asp Gly Gln \$100\$

Leu Ile Tyr Thr Pro Phe Thr Glu Asp Thr Glu Thr Val Gly Gln Arg
115 120 125

Ala Leu His Ser Ile Leu Asn Ala Ile Met Ile Ser Val Ile Val 130 135 140

Val Met Thr Ile Leu Leu Val Val Leu Tyr Lys Tyr Arg Cys Tyr Lys 145 150 155 160

Val Ile His Ala Trp Leu Ile Ile Ser Ser Leu Leu Leu Phe Phe 165 170 175

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-7-

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cag atg tct gag gac aac cac ctg agc aat act gta cgt agc cag aat Gln Met Ser Glu Asp Asn His Leu Ser Asn Thr Val Arg Ser Gln Asn 15 20 25 30	338
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cct gag cca tta tct aat gga cga ccc cag ggt aac tcc cgg cag gtg Pro Glu Pro Leu Ser Asn Gly Arg Pro Gln Gly Asn Ser Arg Gln Val 50 55 60	434
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		gtt ctg tat aaa tac Val Leu Tyr Lys Tyr 155	
J J		ata tca tct cta ttg Ile Ser Ser Leu Leu 170	
		gaa gtg ttt aaa acc Glu Val Phe Lys Thr 185	
		ctc ctg atc tgg aat Leu Leu Ile Trp Asn 200	
J J J J J J J	33	aaa ggt cca ctt cga Lys Gly Pro Leu Arg 220	9
		ctc atg gcc ctg gtg Leu Met Ala Leu Val 235	
		ctc atc ttg gct gtg Leu Ile Leu Ala Val 250	
		ccg aaa ggt cca ctt Pro Lys Gly Pro Leu 265	•
		gaa acg ctt ttt cca Glu Thr Leu Phe Pro 280	
		gtg aat atg gca gaa Val Asn Met Ala Glu 300	
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2649

2709

2765

gcagetetgt crtggtagea gatggteeca ttattetagg gtettaetet ttgtatgatg

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Arg Gl	ı Arg 35	Gln	Glu	His	Asn	Asp 40	Arg	Arg	Ser	Leu	Gly 45	His	Pro	Glu
Pro Let 50	ı Ser	Asn	Gly	Arg	Pro 55	Gln	Gly	Asn	Ser	Arg 60	Gln	Val	Val	Glu
Gln Ası 65	o Glu	Glu	Glu	Asp 70	Glu	Glu	Leu	Thr	Leu 75	Lys	Tyr	Gly	Ala	Eys Lys
His Val	l Ile	Met	Leu 85	Phe	Val	Pro	Val	Thr 90	Leu	Cys	Met	Val	Val 95	Val
Val Ala	a Thr	Ile 100	Lys	Ser	Val	Ser	Phe 105	Tyr	Thr	Arg	Lys	Asp 110	Gly	Gln
Leu Ile	Tyr 115	Thr	Pro	Phe	Thr	Glu 120	Asp	Thr	Glu	Thr	Val 125	Gly	Gln	Arg
Ala Let		Ser	Ile	Leu	Asn 135	Ala	Ala	Ile	Met	Ile 140	Ser	Val	Ile	Val
Val Met 145	Thr	Ile	Leu	Leu 150	Val	Val	Leu	Tyr	Lys 155	Tyr	Arg	Cys	Tyr	Lys 160
Val Ile	e His	Ala	Trp 165	Leu	Ile	Ile	Ser	Ser 170	Leu	Leu	Leu	Leu	Phe 175	Phe
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Val Ası	Tyr 195	Ile	Thr	Val	Ala	Leu 200	Leu	Ile	Trp	Asn	Phe 205	Gly	Val	Val
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Tyr Let 225	ı Ile	Met	Ile	Ser 230	Ala	Leu	Met	Ala	Leu 235	Val	Phe	Ile	Lys	Tyr 240
Leu Pro	o Glu	Trp	Thr 245	Ala	Trp	Leu	Ile	Leu 250	Ala	Val	Ile	Ser	Val 255	Tyr

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60

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_		_	_		cag Gln				_	_		_				3	386
					aat Asn											4	434
					gaa Glu											4	482
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					att Ile 100											ç	578
					acc Thr											6	626
					tca Ser											6	57 <b>4</b>
					atc Ile											5	722
					gcc Ala											-	770
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					att Ile											8	366
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_	_				atg Met		_	_		_	_	_				9	962

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att tac tcc tca a Ile Tyr Ser Ser T 290						1154				
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agc aca gaa agg g Ser Thr Glu Arg G 320		-		_		1250				
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gca ttg cca gct c Ala Leu Pro Ala I 4		Ser Ile T				1586				
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cat caa ttt tat a His Gln Phe Tyr I 465	_	tt geggtta	agaa tcccat	ggat gtt	tcttctt	1689				
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Pro Leu Ser Asn Gly Arg Pro Gln Gly Asn Ser Arg Gln Val Val Glu 50 55 60

Gln Asp Glu Glu Glu Asp Glu Glu Leu Thr Leu Lys Tyr Gly Ala Lys 65 70 75 80

His Val Ile Met Leu Phe Val Pro Val Thr Leu Cys Met Val Val Val 85 90 95

Val Ala Thr Ile Lys Ser Val Ser Phe Tyr Thr Arg Lys Asp Gly Gln
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<sup>&</sup>lt;211> 467

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

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Val 145	Met	Thr	Ile	Leu	Leu 150	Val	Val	Leu	Tyr	Lys 155	Tyr	Arg	Cys	Tyr	Lys 160
Val	Ile	His	Ala	Trp 165	Leu	Ile	Ile	Ser	Ser 170	Leu	Leu	Leu	Leu	Phe 175	Phe
Phe	Ser	Phe	Ile 180	Tyr	Leu	Gly	Glu	Val 185	Phe	Lys	Thr	Tyr	Asn 190	Val	Ala
Val	Asp	Tyr 195	Ile	Thr	Val	Ala	Leu 200	Leu	Ile	Trp	Asn	Phe 205	Gly	Val	Val
Gly	Met 210	Ile	Ser	Ile	His	Trp 215	Lys	Gly	Pro	Leu	Arg 220	Leu	Gln	Gln	Ala
Tyr 225	Leu	Ile	Met	Ile	Ser 230	Ala	Leu	Met	Ala	Leu 235	Val	Phe	Ile	Lys	Tyr 240
Leu	Pro	Glu	Trp	Thr 245	Ala	Trp	Leu	Ile	Leu 250	Ala	Val	Ile	Ser	Val 255	Tyr
Asp	Leu	Val	Ala 260	Val	Leu	Cys	Leu	Lys 265	Gly	Pro	Leu	Arg	Met 270	Leu	Val
Glu	Thr	Ala 275	Gln	Glu	Arg	Asn	Glu 280	Thr	Leu	Phe	Pro	Ala 285	Leu	Ile	Tyr
Ser	Ser 290	Thr	Met	Val	Trp	Leu 295	Val	Asn	Met	Ala	Glu 300	Gly	Asp	Pro	Glu
Ala 305	Gln	Arg	Arg	Val	Ser 310	Lys	Asn	Ser	Lys	His 315	Asn	Ala	Glu	Ser	Thr 320
Glu	Arg	Glu	Ser	Gln 325	Asp	Thr	Val	Ala	Glu 330	Asn	Asp	Asp	Gly	Gly 335	Phe
Ser	Glu	Glu	Trp 340	Glu	Ala	Gln	Arg	Asp 345	Ser	His	Leu	Gly	Pro 350	His	Arg
Ser	Thr	Pro 355	Glu	Ser	Arg	Ala	Ala 360	Val	Gln	Glu	Leu	Ser 365	Ser	Ser	Ile
Leu	Ala 370	Gly	Glu	Asp	Pro	Glu 375	Glu	Arg	Gly	Val	Lys 380	Leu	Gly	Leu	Gly
Asp 385	Phe	Ile	Phe	Tyr	Ser 390	Val	Leu	Val	Gly	Lys 395	Ala	Ser	Ala	Thr	Ala 400
Ser	Gly	Asp	Trp	Asn 405	Thr	Thr	Ile	Ala	Cys 410	Phe	Val	Ala	Ile	Leu 415	Ile
Gly	Leu	Cys	Leu 420	Thr	Leu	Leu	Leu	Leu 425	Ala	Ile	Phe	Lys	Lys 430	Ala	Leu
Pro	Ala	Leu 435	Pro	Ile	Ser	Ile	Thr 440	Phe	Gly	Leu	Val	Phe 445	Tyr	Phe	Ala

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cct gag cca tta tct aat gga cga ccc cag ggt aac tcc cgg cag gtg Pro Glu Pro Leu Ser Asn Gly Arg Pro Gln Gly Asn Ser Arg Gln Val 50 55 60	434
gtg gag caa gat gag gaa gaa gat gag gag ctg aca ttg aaa tat ggc Val Glu Gln Asp Glu Glu Glu Asp Glu Glu Leu Thr Leu Lys Tyr Gly 65 70 75	482
gcc aag cat gtg atc atg ctc ttt gtc cct gtg act ctc tgc atg gtg Ala Lys His Val Ile Met Leu Phe Val Pro Val Thr Leu Cys Met Val 80 85 90	530
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115 120 125	

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					tcc Ser											914
					atg Met											962
					tgg Trp											1010
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<211> 467

<212> PRT

<213> Homo sapiens

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Arg Glu Arg Gln Glu His Asn Asp Arg Arg Ser Leu Gly His Pro Glu
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Pro Leu Ser Asn Gly Arg Pro Gln Gly Asn Ser Arg Gln Val Val Glu 50 55 60

Gln Asp Glu Glu Glu Asp Glu Glu Leu Thr Leu Lys Tyr Gly Ala Lys 65 70 75 80

His Val Ile Met Leu Phe Val Pro Val Thr Leu Cys Met Val Val Val 85 90 95

Val Ala Thr Ile Lys Ser Val Ser Phe Tyr Thr Arg Lys Asp Gly Gln
100 105 110

Leu Ile Tyr Thr Pro Phe Thr Glu Asp Thr Glu Thr Val Gly Gln Arg

Ala Leu His Ser Ile Leu Asn Ala Ala Ile Met Ile Ser Val Ile Val 130 140

Val Met Thr Ile Leu Leu Val Val Leu Tyr Lys Tyr Arg Cys Tyr Lys
145 150 155 160

Val Ile His Ala Trp Leu Ile Ile Ser Ser Leu Leu Leu Phe Phe 165 170 175

Phe Ser Phe Ile Tyr Leu Gly Glu Val Phe Lys Thr Tyr Asn Val Ala 180 185 190

Val Asp Tyr Ile Thr Val Ala Leu Leu Ile Trp Asn Phe Gly Val Val 195 200 205

Gly Met Ile Ser Ile His Trp Lys Gly Pro Leu Arg Leu Gln Gln Ala 210 215 220

Tyr Leu Ile Met Ile Ser Ala Leu Met Ala Leu Val Phe Ile Lys Tyr 225 230 235 240

Leu Pro Glu Trp Thr Ala Trp Leu Ile Leu Ala Val Ile Ser Val Tyr
245 250 255

Asp Leu Val Ala Val Leu Cys Pro Lys Gly Pro Leu His Met Leu Val 260 265 270

Glu Thr Ala Gln Glu Arg Asn Glu Thr Leu Phe Pro Ala Leu Ile Tyr

Ser Ser Thr Met Val Trp Leu Val Asn Met Ala Glu Gly Asp Pro Glu 290 295 300

 Ala ala 305
 Glu Arg
 Arg Ser 310
 Lys Asn Ser Lys 315
 Lys Asn Ala Glu 315
 Asn Ala Glu 320
 Ser Thr 320

 Glu Arg Glu Arg Glu Arg Glu Arg Glu 325
 Asp Thr Val Ala Glu 330
 Asp Asp Asp Asp Gly Gly 335
 Phe 335

 Ser Glu Glu Trp 340
 Ala Glu Arg Asp 345
 Ser His Leu Gly Pro His Arg 350
 Arg Arg 345

 Ser Thr Pro 355
 Glu Ser Arg Ala Ala Ala Val Glu Glu Leu Ser Ser Ser Ile 365
 Ser Ser Ile 365

 Leu Ala Gly Glu Asp Pro 375
 Glu Arg Gly Val Lys Ala Ser Ala Thr Ala 380

 Asp Phe Ile Phe Tyr Ser Val Leu Val Gly Lys Ala Ser Ala Thr Ala 400

 Ser Gly Asp Trp Asn Thr Thr Ile Ala Cys Phe Val Ala Ile Leu Ala Ile Leu Ala Ser Ala Thr Ala 400

 Gly Leu Cys Leu Thr Leu Leu Leu Leu Leu Ala Ile Phe Lys Lys Ala Ile Ala Ile Ala Ser Ala Ile Ala Ile Ala Ser Ala Ile Ala

Phe Tyr Ile 465